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DCBC302

Reg. No.

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III Semester B.Com. (Regular) Degree Examination,**December/January - 2025/26****COMMERCE****Business Statistics****(NEP Scheme Repeaters)****Paper : 3.2****Time : 2½ Hours****Maximum Marks : 60****Instructions to Candidates:**

Answer all the Sections.

SECTION - A

Answer any Five of the following sub-questions. Each sub-question carries 2 marks.

(5×2=10)

1. a) Write any two objectives of tabulation.
- b) State the empirical relationship between mean, median and mode.
- c) What is Pie chart?
- d) What is secondary data? Give example.
- e) Mean and variance of 100 items are found to be 40 and 121 respectively. What is its coefficient of variation?
- f) Give the regression equations of :
 - i) Y on X
 - ii) X on Y
- g) What is Positive or Direct Correlation?

SECTION - B

Answer any Four of the following questions. Each question carries 5 marks.(4×5=20)

2. Mention any five functions of Statistics.
3. Draw a simple bar diagram from the following data relating to the number of MSME's in various states during the year 2025.

| States | Karnataka | Tamil Nadu | AP | MP | HP |
|-------------------------------|-----------|------------|----|----|----|
| No. of MSME's in 000 units | 50 | 60 | 40 | 65 | 75 |

[P.T.O.]



4. Tabulation the following :

Out of the total number of 10,000 candidates who applied for jobs in a government department, 6,854 were males, 3,146 were graduates and others non - graduates.

The number of candidates with some experience were 2,623, of whom 1860 were males. The number of male graduates were 2,012. The number of graduates with experience were 1,093 that includes 323 females.

5. Compute standard deviation from the following data :

| | | | | | | | |
|---|---|---|----|----|----|---|---|
| X | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| f | 3 | 9 | 11 | 14 | 12 | 7 | 4 |

6. Following particulars related to wages paid by two factories M and N belonging to the same industry :

| | Factory M | Factory N |
|----------------|-----------|-----------|
| No. of workers | 856 | 684 |
| Average wages | Rs. 552 | Rs. 574 |
| Variance | 144 | 196 |

- Which factory pays higher wages
- Which factory has greater variability in wages?

SECTION - C

Answer any Two of the following questions. Each question carries 12 marks. (2×12=24)

7. Given the bivariate data, find regression equations of X on Y and Y on X respectively.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| X | 1 | 5 | 3 | 2 | 1 | 2 | 7 | 3 |
| Y | 6 | 1 | 0 | 0 | 1 | 2 | 1 | 5 |

8. Calculate the coefficient of correlation between X and Y series from the following data :

| | | | | | | |
|---|---|---|---|---|---|----|
| X | 1 | 3 | 5 | 7 | 9 | 11 |
| Y | 2 | 3 | 4 | 3 | 2 | 4 |

9. Find the value of mean, median and mode from the following data :

| Weight in kgs | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| No. of students | 3 | 10 | 15 | 18 | 25 | 19 | 14 |

SECTION - D

Answer any One of the following question carries 6 marks.

(1×6=6)

10. Draft a blank table for the following data:

- Gender : Male, Female.
- Faculty : Commerce, Arts, Science and BBA
- Years : 2006, 2007, 2008, 2009.

11. Based on imaginary marks scored by 50 students in an examination, prepare a frequency distribution table: